

Amendments to the Specification:

After the title of the application please insert the following heading and paragraph:

CROSS REFERENCE TO RELATED APPLICATION

The present application is related to and claims priority of the PCT application number PCT/CH02/00497 of Sentron AG entitled Magnetic field sensor with a Hall element, filed on September 10, 2002, the disclosure of which is incorporated by reference.

Please amend paragraph [0001] as follows:

FIELD OF THE INVENTION

The invention concerns a magnetic field sensor with a symmetrical vertical Hall element of the type named in the preamble of claim 1.

Before paragraph [0002] please insert the following heading:

BACKGROUND OF THE INVENTION

Please delete paragraph [0008].

Please amend paragraph [0016] as follows:

In the following, Various embodiments of the invention are explained in more detail below based on the drawings. The figures shown in the drawings are not drawn to scale.

Please insert the following heading before paragraph [0017]:

BRIEF DESCRIPTION OF THE DRAWINGS

Please amend paragraphs [0017-0024] as follows:

[0017] ~~It is shown in:~~ Fig. 1 shows a cross-section of a symmetrical vertical Hall element,

[0018] Fig. 2 shows a plan view of the symmetrical vertical Hall element,

[0019] Fig. 3 shows an equivalent circuit diagram for the symmetrical vertical Hall element,

- [0020] Fig. 4 shows a symmetrical vertical Hall element with an integrated resistor,
- [0021] Fig. 5 shows a symmetrical vertical Hall element with two integrated resistors,
- [0022] Fig. 6 shows a symmetrical vertical Hall element with additional electrodes,
- [0023] Fig. 7 shows a mask that, on the implantation of ions, is used for the formation of an N-type well, and
- [0024] Figs. 8, 9 show two anti-parallel connected Hall elements.

Before paragraph [0025] please insert the following heading:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS